

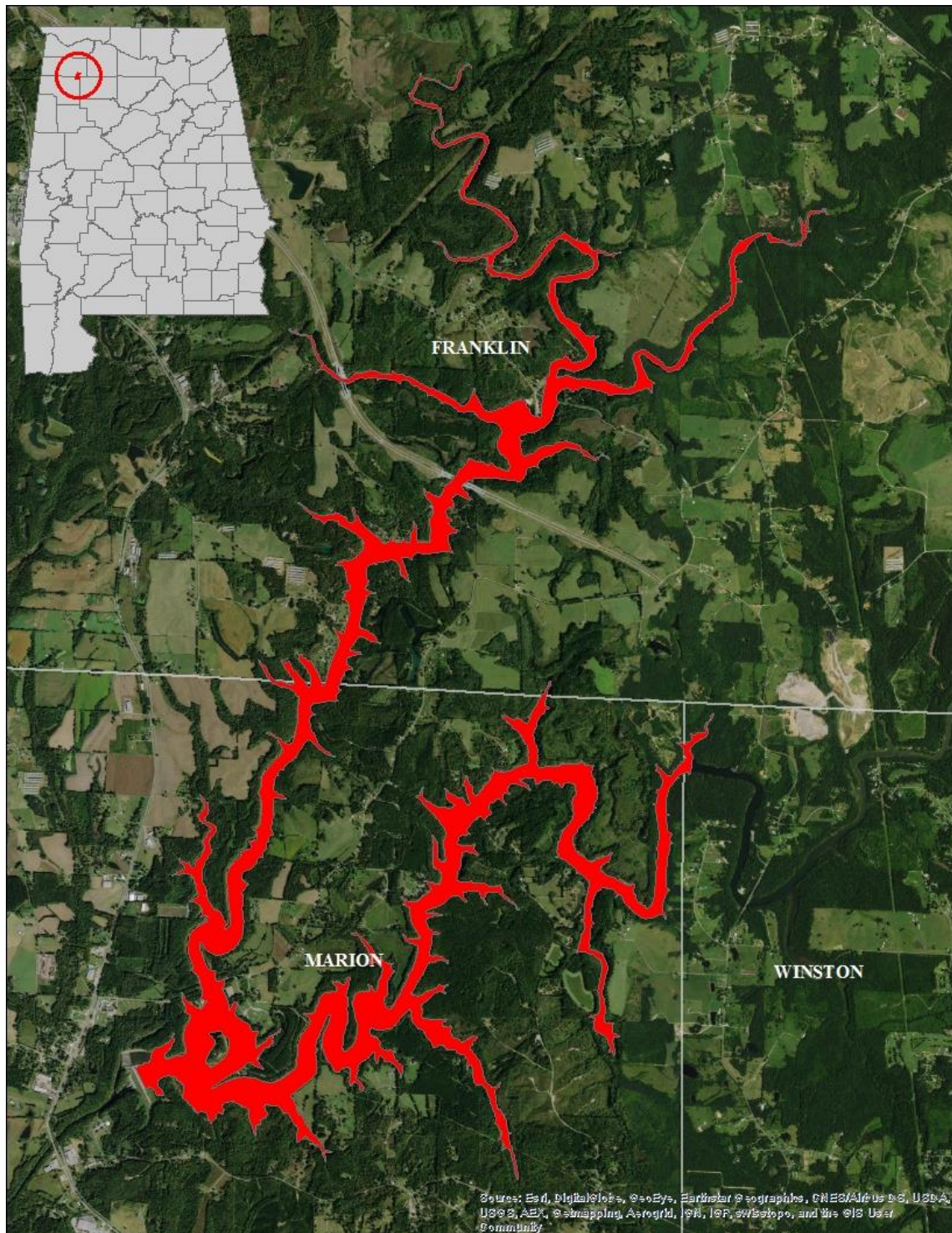


**Draft
Delisting Decision
for
Bear Creek
(Upper Bear Creek Lake)**

**Waterbody ID AL06030006-0103-104
Organic Enrichment (CBOD, NBOD)**

Alabama Department of Environmental Management
Water Quality Branch
Water Division
November 2017

Upper Bear Creek Lake in the Tennessee River Basin



<i>Table of Contents</i>	<i>Page</i>
1. Executive Summary	4
2. Basis for §303(d) Listing	5
3. Technical Basis for Delisting Decision	5
3.1 Water Quality Target Identification	5
3.2 Data Availability and Analysis	6
4. Conclusions	10
5. Public Participation	11
6. Appendices	
6.1 References	12
6.2 Water Quality Data	13

List of Tables and Figures

Table 2.1	EPA's Original Listing of Bear Creek (Upper Bear Creek Lake)	5
Table 3.1	Bear Creek (Upper Bear Creek Lake) Sampling Stations	6
Table 3.2	Dissolved Oxygen Grab Samples at Station UBDFB	8
Table 3.3	Summary of NH ₃ -N and TKN Analysis for Bear Creek (Upper Bear Creek Lake)	10
Figure 3.1	Map of Sampling Location for Bear Creek (Upper Bear Creek Lake)	7
Figure 3.2	UBAM-1 Long-Term Continuous Dissolved Oxygen Results	9

1.0 Executive Summary

Bear Creek (Upper Bear Creek Lake) is located in Franklin, Marion, and Winston Counties and is a part of the Tennessee River Basin. The listed portion of Upper Bear Creek Lake addressed in this document is from the Upper Bear Creek dam to the confluence with Pretty Branch. The listed portion encompasses 1,463 acres, beginning in Franklin and Winston Counties and ending at the Upper Bear Creek dam in Marion County. Bear Creek (Upper Bear Creek Lake) has a use classification of Public Water Supply (PWS), Swimming (S), and Fish & Wildlife (F&W).

The purpose of this Delisting Decision document is to provide evidence supporting the decision to remove the organic enrichment impairment on this segment of Bear Creek (Upper Bear Creek Lake) from the Department's §303(d) List of Impaired Waterbodies.

In 2010, Bear Creek (Upper Bear Creek Lake) was originally listed for Organic Enrichment on the State of Alabama's §303(d) list by ADEM. The original listing was reportedly based on data collected from 2004 through 2008 by the Tennessee Valley Authority (TVA). The data was collected from Station UBDFB at the Upper Bear Creek Lake Forebay. Five of thirty-nine dissolved oxygen samples collected were lower than the criterion of 5.0 mg/L. Bear Creek (Upper Bear Creek Lake) has subsequently been listed on Alabama's 2012, 2014, and 2016 §303(d) lists of impaired waterbodies.

Additional data was collected for Bear Creek (Upper Bear Creek Lake) from 2013 through 2015 to assess its ability to meet applicable water quality standards. The data indicates that Bear Creek (Upper Bear Creek Lake), from Upper Bear Creek Dam to the confluence with Pretty Branch, now fully supports its use classification with respect to Organic Enrichment (CBOD, NBOD).

The following report only addresses the results of the delisting analysis of Bear Creek (Upper Bear Creek Lake) for Organic Enrichment. Based on an assessment of all available data, ADEM has determined that a water quality impairment due to Organic Enrichment (CBOD, NBOD) does not exist. Therefore, ADEM will not develop a TMDL due to "more recent or accurate data," which is just cause for delisting a waterbody according to Title 40 of the Code of Federal Regulations (CFR), Part 130.7(b)(6)(iv).

2.0 Basis for §303(d) Listing

Section 303(d) of the Clean Water Act (CWA), as amended by the Water Quality Act of 1987 and EPA's Water Quality Planning and Management Regulations (Title 40 of the Code of Federal Regulations (CFR), Part 130), requires states to identify waterbodies which are not meeting water quality standards applicable to their designated use classifications. The identified waters are prioritized based on severity of pollution with respect to designated use classifications. TMDLs for all pollutants causing violation of applicable water quality standards are established for each identified water. Such loads are established at levels necessary to implement the applicable water quality standards with seasonal variations and margins of safety. The TMDL process establishes the allowable loading of pollutants, or other quantifiable parameters for a waterbody, based on the relationship between pollution sources and in-stream water quality conditions, so that states can establish water-quality based controls to reduce pollution from both point and non-point sources and restore and maintain the quality of their water resources (USEPA, 1991).

The current §303(d) list states that Bear Creek (Upper Bear Creek Lake) is impaired for a surface area of 1,463 acres from the Upper Bear Creek Dam to the confluence with Pretty Branch. The original listing was reportedly based on data collected from 2004 through 2008 by the Tennessee Valley Authority (TVA). The data was collected from Station UBDFB at the Upper Bear Creek Lake Forebay. Five of thirty-nine dissolved oxygen samples collected were lower than the criterion of 5.0 mg/L. In 2010, Bear Creek (Upper Bear Creek Lake) was placed on the §303(d) list by ADEM with the pollutant of concern being Organic Enrichment (CBOD, NBOD). Bear Creek (Upper Bear Creek Lake) has subsequently been listed on Alabama's 2012, 2014, and 2016 §303(d) lists of impaired waterbodies. Bear Creek (Upper Bear Creek Lake) has a use classification of Public Water Supply (PWS), Swimming (S), and Fish & Wildlife (F&W).

Table 2.1 ADEM's Original Listing of Bear Creek (Upper Bear Creek Lake)

Assessment Unit ID	Waterbody Name	County	Causes
AL06030006-0103-104	Bear Creek (Upper Bear Creek Reservoir)	Franklin Marion Winston	Metals (Mercury) Organic Enrichment (CBOD, NBOD)

3.0 Technical Basis for Delisting Decision

3.1 Water Quality Target Identification

The use classification for Bear Creek (Upper Bear Creek Lake) is Public Water Supply, Swimming, and Fish and Wildlife (PWS/S/F&W). According to ADEM's Water Quality Criteria (Administrative Code 335-6-10), the Dissolved Oxygen criterion for the Public Water Supply, Swimming, and Fish and Wildlife use classifications is as follows:

For a diversified warm water biota, including game fish, daily dissolved oxygen concentrations shall not be less than 5 mg/l at all times; except under extreme conditions due to natural causes, it may range between 5 mg/l and 4 mg/l, provided that the water quality is favorable in all other parameters. The normal seasonal and daily fluctuations shall be maintained above these levels. In no event shall the dissolved oxygen level be less

than 4 mg/l due to discharges from existing hydroelectric generation impoundments. All new hydroelectric generation impoundments, including addition of new hydroelectric generation units to existing impoundments, shall be designed so that the discharge will contain at least 5 mg/l dissolved oxygen where practicable and technologically possible. The Environmental Protection Agency, in cooperation with the State of Alabama and parties responsible for impoundments, shall develop a program to improve the design of existing facilities.

In order to determine if an organic enrichment impairment exists in Bear Creek (Upper Bear Creek Lake), the Department will evaluate measured dissolved oxygen concentrations against the criterion mentioned above.

3.2 Data Availability and Analysis

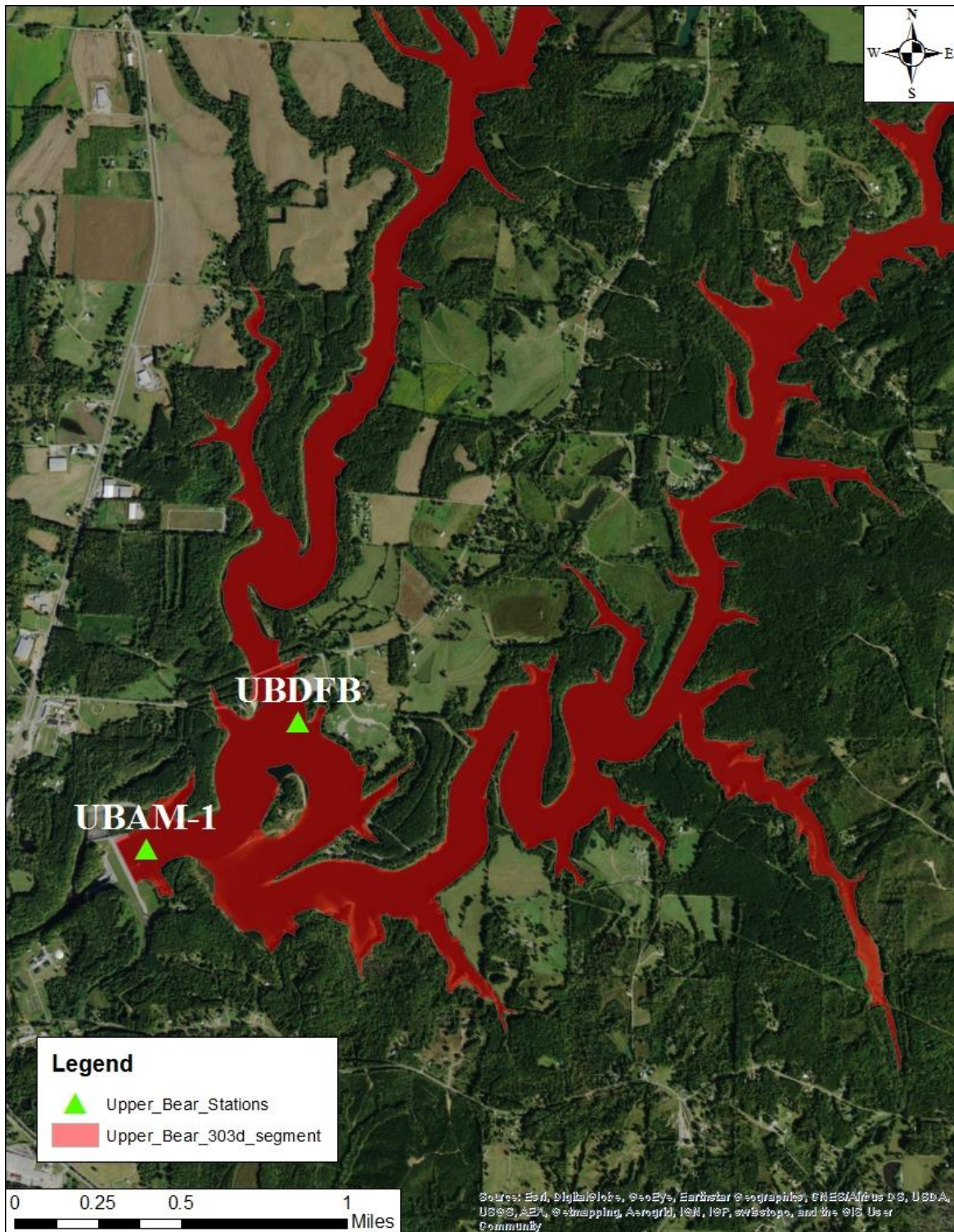
It should be noted that even though Bear Creek (Upper Bear Creek Lake) was sampled prior to 2013, only the data that is approximately six years in age or less will be used in this analysis, which is consistent with Alabama's Water Quality Assessment and Listing Methodology (ADEM, 2016).

The data that was utilized in the evaluation of Bear Creek (Upper Bear Creek Lake) is from TVA's reservoir sampling program and ADEM's Water Quality Branch 72-hour diurnal study. Both physical and chemical data were collected at the following sampling stations: UBDFB (TVA) and UBAM-1 (ADEM). This data can be found in Appendix 6.2. Refer to Table 3.1 for location descriptions of the aforementioned sampling stations and to Figure 3.1 for a map depicting the location of the sampling stations.

Table 3.1 Bear Creek (Upper Bear Creek Lake) Sampling Stations

ADEM Station	TVA Station	Latitude	Longitude	Description
UBAM-1	-	34.273306	-87.692167	Upper Bear Creek Lake Forebay
-	UBDFB	34.278932	-87.684229	Upper Bear Creek Lake Forebay

Figure 3.1 Map of Sampling Locations for Bear Creek (Upper Bear Creek Lake)

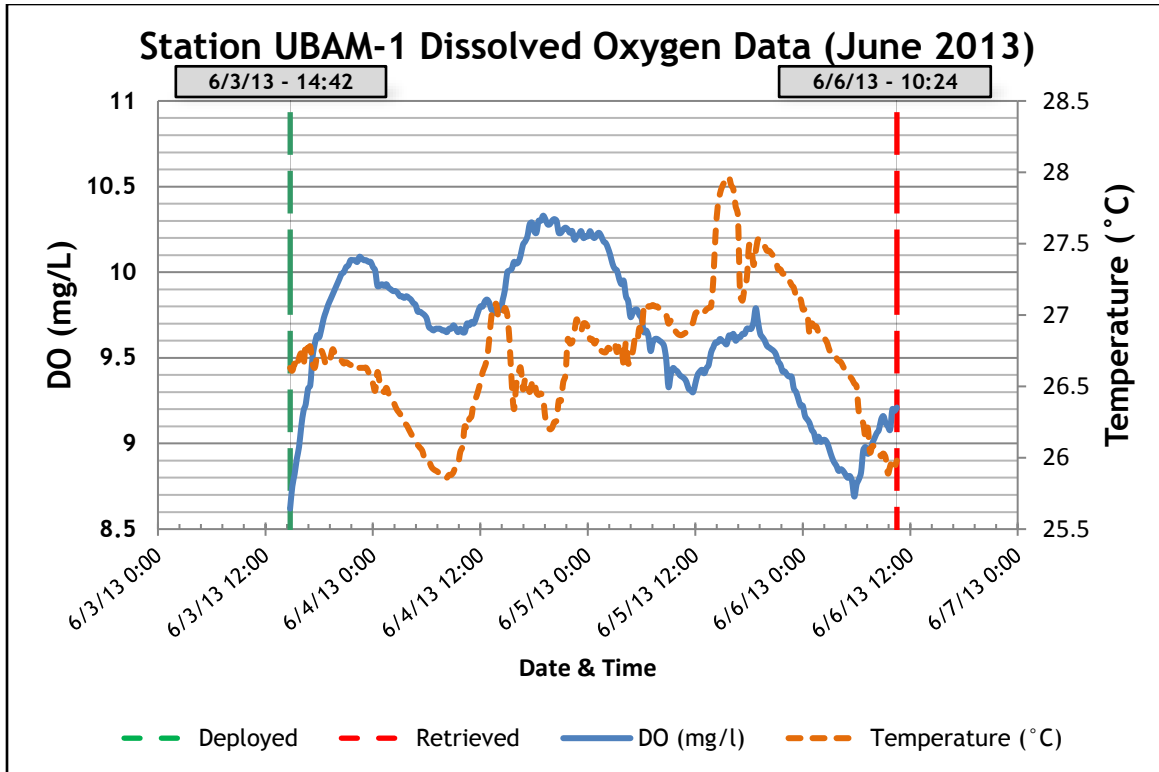


From 2013 to 2015, TVA collected 21 dissolved oxygen (DO) samples at UBDFB. The DO data from TVA is shown in Table 3.2. Also, ADEM completed a long term 72-hour diurnal study by deploying a datasonde approximately 1.5 meters below the water surface at station UBAM-1. The study was conducted between June 3, 2013, and June 6, 2013. DO values ranged between 8.62-10.33 mg/L during the 72-hour study. A graph showing the results of the study is shown in Figure 3.2.

Table 3.2 Dissolved Oxygen Grab Samples at Station UBDFB

Station ID	Collection Date	Collection Time	DO (mg/L)	Depth (m)
UBDFB	5/1/2013	14:03:36	10.38	1.5
UBDFB	5/21/2013	16:47:55	11.43	1.5
UBDFB	6/25/2013	12:25:10	8.43	1.5
UBDFB	7/30/2013	14:33:12	8.65	1.5
UBDFB	8/28/2013	12:34:43	8.54	1.5
UBDFB	9/24/2013	11:55:24	6.74	1.5
UBDFB	10/23/2013	12:43:28	4.99	1.5
UBDFB	4/23/2014	14:13:17	11.49	1.5
UBDFB	5/20/2014	17:47:12	9.67	1.5
UBDFB	6/16/2014	10:27:04	10.1	1.5
UBDFB	7/23/2014	9:16:14	8.5	1.5
UBDFB	8/27/2014	12:48:19	8.12	1.5
UBDFB	9/25/2014	17:54:33	7.52	1.5
UBDFB	10/30/2014	12:47:15	5.35	1.5
UBDFB	4/21/2015	13:18:00	10.25	1.5
UBDFB	5/20/2015	10:33:04	9.9	1.5
UBDFB	6/17/2015	11:56:06	8.04	1.5
UBDFB	7/22/2015	12:16:29	7.96	1.5
UBDFB	8/19/2015	10:54:06	7.62	1.5
UBDFB	9/16/2015	10:58:37	6.74	1.5
UBDFB	10/29/2015	13:41:41	6.38	1.5

Figure 3.2 UBAM-1 Long-Term Continuous Dissolved Oxygen Results



From 2013 to 2015, TVA collected 21 Ammonia Nitrogen (NH₃-N) and 20 Total Kjeldahl Nitrogen (TKN) samples at UBDFB. The median values for these parameters were compared to their respective level 4 ecoregional reference guidelines. CBOD data was not collected at UBDFB; however, the DO, NH₃-N, and TKN data indicates that there is not an organic enrichment impairment for this segment of Bear Creek (Upper Bear Creek Lake). The NH₃-N and TKN data from TVA is shown in Table 3.3.

Table 3.3 Summary of NH3-N and TKN Analysis for Bear Creek (Upper Bear Creek Lake)

Station ID	Collection Date	Collection Time	Sample Type	NH3-N	TKN	Units
UBDFB	5/1/2013	14:04:17	Photic Zone Comp	<0.10	0.46	mg/L
UBDFB	5/21/2013	16:48:34	Photic Zone Comp	<0.10	0.57	mg/L
UBDFB	6/25/2013	12:26:04	Photic Zone Comp	<0.10	0.56	mg/L
UBDFB	7/30/2013	14:33:54	Photic Zone Comp	<0.10	0.17	mg/L
UBDFB	8/28/2013	12:35:31	Photic Zone Comp	<0.10	0.41	mg/L
UBDFB	9/24/2013	11:56:37	Photic Zone Comp	<0.10	0.33	mg/L
UBDFB	10/23/2013	12:44:25	Photic Zone Comp	0.064	0.29	mg/L
UBDFB	4/23/2014	14:14:20	Photic Zone Comp	<0.020		mg/L
UBDFB	5/20/2014	17:48:33	Photic Zone Comp	0.056	0.41	mg/L
UBDFB	6/16/2014	10:28:03	Photic Zone Comp	0.05	0.21	mg/L
UBDFB	7/23/2014	9:17:16	Photic Zone Comp	<0.020	0.34	mg/L
UBDFB	8/27/2014	12:50:13	Photic Zone Comp	<0.020	0.49	mg/L
UBDFB	9/25/2014	17:55:43	Photic Zone Comp	<0.020	0.29	mg/L
UBDFB	10/30/2014	12:47:59	Photic Zone Comp	0.11	0.55	mg/L
UBDFB	4/21/2015	13:20	Photic Zone Comp	0.022	0.33	mg/L
UBDFB	5/20/2015	10:30	Photic Zone Comp	0.034	0.56	mg/L
UBDFB	6/17/2015	12:00	Photic Zone Comp	<0.020	0.27	mg/L
UBDFB	7/22/2015	12:15	Photic Zone Comp	<0.020	0.35	mg/L
UBDFB	8/19/2015	10:55	Photic Zone Comp	<0.020	0.3	mg/L
UBDFB	9/16/2015	11:00	Photic Zone Comp	<0.020	0.26	mg/L
UBDFB	10/29/2015	13:40	Photic Zone Comp	0.13	0.41	mg/L
Median				0.05	0.345	mg/L
Ecoregional Reference				0.0945	0.6595	mg/L

4.0 Conclusions

From examination of all available data, ADEM has determined that a water quality impairment due to Organic Enrichment (CBOD, NBOD) does not currently exist within Bear Creek (Upper Bear Creek Lake) from Upper Bear Creek Dam to the confluence with Pretty Branch. Therefore, ADEM will not develop a TMDL due to “more recent data,” which is a just cause for delisting waterbodies according to Title 40 of the Code of Federal Regulations (CFR), Part 130.7(b)(6)(iv).

5.0 Public Participation

As part of the public participation process, this Delisting Decision (DD) will be placed on public notice and made available for review and comment. A public notice will be prepared and published in the major daily newspapers in Montgomery, Huntsville, Birmingham, and Mobile, as well as submitted to persons who have requested to be on ADEM's postal and electronic mailing distributions. In addition, the public notice and subject DD will be made available on ADEM's Website: www.adem.state.al.us. The public can also request hard or electronic copies of the DD by contacting Ms. Kimberly Minton at 334-271-7826 or kminton@adem.alabama.gov. The public will be given an opportunity to review the DD and submit comments to the Department in writing. At the end of the comment period, all written comments received during the public notice period will become part of the administrative record. ADEM will consider all comments received by the public prior to final completion of this DD and subsequent submission to EPA Region 4 for final approval.

Appendix 6.1

References

ADEM Administrative Code, 2017. Water Quality Program, Chapter 335-6-10, Water Quality Criteria, and Chapter 335-6-11 Use Classifications for Interstate and Intrastate Waters.

Alabama Department of Environmental Management (ADEM). Alabama's Water Quality Assessment and Listing Methodology, January 2016.

Tennessee Valley Authority's Vital Signs Monitoring Program. 2013-2015.

United States Environmental Protection Agency. 1991. Guidance for Water Quality-Based Decisions: The TMDL Process, Office of Water, EPA 440/4-91-001.

Appendix 6.2 Water Quality Data

Reservoir	Station ID	River Mile	Zone	Collection Date	Collection Time	Water Temperature (C)	pH (s.u.)	Conductivity (µS/cm)	DO %Sat	DO (mg/L)	Depth (m)
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	4/18/2002	11:16:01	17.35	6.79	46	111	10.57	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	5/20/2002	10:45:23	19.33	6.42	45.3	90.4	8.29	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	6/13/2002	10:58:47	24.31	6.07	50.7	59.2	4.87	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	7/18/2002	10:43:11	29.76	7.2	51.8	103.4	7.77	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	8/15/2002	11:11:27	27.67	6.24	59.4	49.1	3.82	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	9/13/2002	11:55:33	28.12	6.38	66	41.7	3.21	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	10/10/2002	11:22:54	23.55	6.36	61.1	58.1	4.87	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	4/22/2003	13:50:00	18.23	6.38	49.5	103.1	9.58	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	5/14/2003	11:50:00	21.88	7.58	52.3	118.7	10.25	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	6/10/2003	12:20:00	25.2	8.6	51		10.5	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	7/8/2003	12:39:52	26.25	6.13	56.5	82.7	6.62	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	8/26/2003	11:39:58	28.65	6.27	64.6	67.3	5.14	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	9/17/2003	11:30:06	26.66	6.13	68.6	44.4	3.52	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	10/9/2003	12:49:58	22.34	6.31	64.6	58.1	4.98	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	4/27/2004	9:08:15	19.3	6.36	49	94.8	8.65	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	5/18/2004	12:45:08	22.15	6.34	54.6	88	7.61	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	6/22/2004	12:32:51	28.1	6.83	58.6	112.6	8.66	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	7/29/2004	8:37:50	27.34	6.26	64.2	69.4	5.4	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	8/26/2004	8:19:27	25.94	6.31	63.7	65.6	5.26	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	9/22/2004	17:11:15	24.4	6.49	66.8	77.1	6.39	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	10/21/2004	9:29:23	20.42	6.8	64	51.9	4.6	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	4/19/2005	9:15:16	16.99	7.5	55.5	98.9	9.46	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	5/19/2005	9:22:44	20.93	6.67	53.6	87.5	7.69	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	6/16/2005	8:42:11	26.91	7.02	54.5	108.7	8.5	1.5

Reservoir	Station ID	River Mile	Zone	Collection Date	Collection Time	Water Temperature (C)	pH (s.u.)	Conductivity (µS/cm)	DO %Sat	DO (mg/L)	Depth (m)
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	7/21/2005	9:08:14	27.52	6.37	60.4	67.3	5.26	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	8/18/2005	9:12:55	29.63	6.92	59.2	77.1	5.76	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	9/22/2005	9:21:09	27.06	6.25	61.5	69.6	5.46	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	10/20/2005	9:05:40	22.11	6.56	58.9	62.9	5.39	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	4/24/2006	10:09:23	22.4	6.71	53.2	107.2	9.08	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	5/22/2006	9:27:30	21.45	6.69	54.5	110.5	9.53	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	6/26/2006	10:08:48	27.6	6.84	55.9	89.5	6.86	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	7/24/2006	9:15:28	29.04	7.27	57.8	101.7	7.64	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	8/28/2006	9:43:12	29.5	7.12	60.9	85.8	6.36	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	9/25/2006	9:55:34	24.85		65.8	56.5	4.62	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	10/23/2006	10:22:13	18.78		68.8	58.9	5.45	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	4/18/2007	9:12:39	15.64	6.75	56.8	94.5	9.16	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	5/16/2007	9:37:35	22.65	6.69	59.7	88.3	7.5	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	6/20/2007	9:05:26	26.21	7.42	61.4	102	8.13	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	7/18/2007	9:08:33	27.6	6.97	63.4	95	7.38	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	8/22/2007	11:50:44	30.34	7.16	66.5	100.9	7.48	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	9/19/2007	12:21:37	26.27	6.5	70.7	38.8	3.11	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	10/24/2007	12:17:10	21.91	6.49	71.8	57.5	4.93	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	4/16/2008	9:17:02	16.03	6.77	58.4	96.8	9.48	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	5/22/2008	8:41:30	22.31	8	58.6	115.6	9.82	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	6/18/2008	9:49:56	27.39	7.23	61.3	98.4	7.63	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	7/28/2008	8:54:02	29.52	7.07	62.3			1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	8/20/2008	8:36:21	27.82	6.67	65.1	69.6	5.38	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	9/15/2008	8:55:42	25.81	6.2	67	47.1	3.78	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	10/15/2008	8:44:02	23.04	6.21	66.4	58.8	5	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	4/27/2009	12:32:28	21.15	8.7	53	114.4	10.1	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	5/20/2009	12:06:19	21.81	8.12	54.5	113.9	9.93	1.5

Reservoir	Station ID	River Mile	Zone	Collection Date	Collection Time	Water Temperature (C)	pH (s.u.)	Conductivity (µS/cm)	DO %Sat	DO (mg/L)	Depth (m)
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	6/25/2009	13:04:33	31.3	8.6	56.4	112.7	8.17	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	7/20/2009	15:31:33	28.34	8.04	57.8	104.9	8.06	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	9/16/2009	12:03:57	26.16	7.21	58.9	94.6	7.51	1.5
Upper Bear Creek	UBDFB	UBRM 115.4	Forebay	10/21/2009	11:59:34	17.95	6.78	59.3	55.3	5.2	1.5
Upper Bear Creek	UBDFB	BRM 115.4	Forebay	5/1/2013	14:03:36	20.32	8.18	56.9	117.1	10.38	1.5
Upper Bear Creek	UBDFB	BRM 115.4	Forebay	5/21/2013	16:47:55	25.12	9.29	56.8	140.9	11.43	1.5
Upper Bear Creek	UBDFB	BRM 115.4	Forebay	6/25/2013	12:25:10	29.9	8.4	55	113	8.43	1.5
Upper Bear Creek	UBDFB	BRM 115.4	Forebay	7/30/2013	14:33:12	29.91	8.49	52.2	115.7	8.65	1.5
Upper Bear Creek	UBDFB	BRM 115.4	Forebay	8/28/2013	12:34:43	28.91	8.3	55.2	112.9	8.54	1.5
Upper Bear Creek	UBDFB	BRM 115.4	Forebay	9/24/2013	11:55:24	25.4	6.66	55.9	84.2	6.74	1.5
Upper Bear Creek	UBDFB	BRM 115.4	Forebay	10/23/2013	12:43:28	20.62	6.77	63.7	56.4	4.99	1.5
Upper Bear Creek	UBDFB	BRM 115.4	Forebay	4/23/2014	14:13:17	19.43	8.32	56	127.1	11.49	1.5
Upper Bear Creek	UBDFB	BRM 115.4	Forebay	5/20/2014	17:47:12	23.76	8.77	56.6	115.3	9.67	1.5
Upper Bear Creek	UBDFB	BRM 115.4	Forebay	6/16/2014	10:27:04	27.33	8.88	64.2	130.4	10.1	1.5
Upper Bear Creek	UBDFB	BRM 115.4	Forebay	7/23/2014	9:16:14	27.83	7.95	61.8	111.1	8.5	1.5
Upper Bear Creek	UBDFB	BRM 115.4	Forebay	8/27/2014	12:48:19	29.76	8.01	67.5	108.5	8.12	1.5
Upper Bear Creek	UBDFB	BRM 115.4	Forebay	9/25/2014	17:54:33	25.78	7.43	67.8	92.8	7.52	1.5
Upper Bear Creek	UBDFB	BRM 115.4	Forebay	10/30/2014	12:47:15	19.41	6.96	73.8	59.5	5.35	1.5
Upper Bear Creek	UBDFB	BRM 115.4	Forebay	4/21/2015	13:18:00	19.29	7.89	53.2	113	10.25	1.5
Upper Bear Creek	UBDFB	BRM 115.4	Forebay	5/20/2015	10:33:04	25.78	9.23	57.2	124	9.9	1.5
Upper Bear Creek	UBDFB	BRM 115.4	Forebay	6/17/2015	11:56:06	29.67	8.31	58.7	107	8.04	1.5
Upper Bear Creek	UBDFB	BRM 115.4	Forebay	7/22/2015	12:16:29	31.38	8.31	57.6	110.6	7.96	1.5
Upper Bear Creek	UBDFB	BRM 115.4	Forebay	8/19/2015	10:54:06	28.69	7.55	62.2		7.62	1.5
Upper Bear Creek	UBDFB	BRM 115.4	Forebay	9/16/2015	10:58:37	25.81	6.73	69.5	83.6	6.74	1.5
Upper Bear Creek	UBDFB	BRM 115.4	Forebay	10/29/2015	13:41:41	19.08	6.72	77.1	70.1	6.38	1.5

Reservoir	Station ID	Collection Date	Collection Time	Sample Type	Sample Depth (m)	Parameter	Value (mg/L)	Lab Qualifier	Qual Text
Upper Bear Creek	UBDFB	5/1/2013	14:04:17	Photic Zone Composite	5.0	Nitrogen, Ammonia	<0.10		
Upper Bear Creek	UBDFB	5/21/2013	16:48:34	Photic Zone Composite	4.0	Nitrogen, Ammonia	<0.10		
Upper Bear Creek	UBDFB	6/25/2013	12:26:04	Photic Zone Composite	4.0	Nitrogen, Ammonia	<0.10		
Upper Bear Creek	UBDFB	7/30/2013	14:33:54	Photic Zone Composite	4.0	Nitrogen, Ammonia	<0.10		
Upper Bear Creek	UBDFB	8/28/2013	12:35:31	Photic Zone Composite	4.0	Nitrogen, Ammonia	<0.10		
Upper Bear Creek	UBDFB	9/24/2013	11:56:37	Photic Zone Composite	4.0	Nitrogen, Ammonia	<0.10		
Upper Bear Creek	UBDFB	10/23/2013	12:44:25	Photic Zone Composite	4.0	Nitrogen, Ammonia	0.064		
Upper Bear Creek	UBDFB	4/23/2014	14:14:20	Photic Zone Composite	4.0	Nitrogen, Ammonia	<0.020	U	Compound was analyzed for but not detected.
Upper Bear Creek	UBDFB	5/20/2014	17:48:33	Photic Zone Composite	4.0	Nitrogen, Ammonia	0.056		
Upper Bear Creek	UBDFB	6/16/2014	10:28:03	Photic Zone Composite	4.0	Nitrogen, Ammonia	0.05		
Upper Bear Creek	UBDFB	7/23/2014	9:17:16	Photic Zone Composite	4.0	Nitrogen, Ammonia	<0.020	U	Compound was analyzed for but not detected.
Upper Bear Creek	UBDFB	8/27/2014	12:50:13	Photic Zone Composite	4.0	Nitrogen, Ammonia	<0.020	U	Compound was analyzed for but not detected.
Upper Bear Creek	UBDFB	9/25/2014	17:55:43	Photic Zone Composite	4.0	Nitrogen, Ammonia	<0.020	U	Compound was analyzed for but not detected.
Upper Bear Creek	UBDFB	10/30/2014	12:47:59	Photic Zone Composite	4.0	Nitrogen, Ammonia	0.11		
Upper Bear Creek	UBDFB	4/21/2015	13:20	Photic Zone Comp	4.0	Nitrogen, Ammonia	0.022	J (I)	
Upper Bear Creek	UBDFB	5/20/2015	10:30	Photic Zone Comp	4.0	Nitrogen, Ammonia	0.034	J (I)	
Upper Bear Creek	UBDFB	6/17/2015	12:00	Photic Zone Comp	4.0	Nitrogen, Ammonia	<0.020		
Upper Bear Creek	UBDFB	7/22/2015	12:15	Photic Zone Comp	5.5	Nitrogen, Ammonia	<0.020		
Upper Bear Creek	UBDFB	8/19/2015	10:55	Photic Zone Comp	5.0	Nitrogen, Ammonia	<0.020		
Upper Bear Creek	UBDFB	9/16/2015	11:00	Photic Zone Comp	4.5	Nitrogen, Ammonia	<0.020		
Upper Bear Creek	UBDFB	10/29/2015	13:40	Photic Zone Comp	4.0	Nitrogen, Ammonia	0.13		

Reservoir	Station ID	Collection Date	Collection Time	Sample Type	Sample Depth (m)	Parameter	Value (mg/L)	Lab Qualifier	Qual Text
Upper Bear Creek	UBDFB	5/1/2013	14:04:17	Photic Zone Composite	5.0	Nitrogen, Kjeldahl, Total	0.46		
Upper Bear Creek	UBDFB	5/21/2013	16:48:34	Photic Zone Composite	4.0	Nitrogen, Kjeldahl, Total	0.57		
Upper Bear Creek	UBDFB	6/25/2013	12:26:04	Photic Zone Composite	4.0	Nitrogen, Kjeldahl, Total	0.56		
Upper Bear Creek	UBDFB	7/30/2013	14:33:54	Photic Zone Composite	4.0	Nitrogen, Kjeldahl, Total	0.17		
Upper Bear Creek	UBDFB	8/28/2013	12:35:31	Photic Zone Composite	4.0	Nitrogen, Kjeldahl, Total	0.41		
Upper Bear Creek	UBDFB	9/24/2013	11:56:37	Photic Zone Composite	4.0	Nitrogen, Kjeldahl, Total	0.33		
Upper Bear Creek	UBDFB	10/23/2013	12:44:25	Photic Zone Composite	4.0	Nitrogen, Kjeldahl, Total	0.29	J	Estimated Value.
Upper Bear Creek	UBDFB	5/20/2014	17:48:33	Photic Zone Composite	4.0	Nitrogen, Kjeldahl, Total	0.41	J	Estimated Value.
Upper Bear Creek	UBDFB	6/16/2014	10:28:03	Photic Zone Composite	4.0	Nitrogen, Kjeldahl, Total	0.21	J	Estimated Value.
Upper Bear Creek	UBDFB	7/23/2014	9:17:16	Photic Zone Composite	4.0	Nitrogen, Kjeldahl, Total	0.34	J	Estimated Value.
Upper Bear Creek	UBDFB	8/27/2014	12:50:13	Photic Zone Composite	4.0	Nitrogen, Kjeldahl, Total	0.49	J	Estimated Value.
Upper Bear Creek	UBDFB	9/25/2014	17:55:43	Photic Zone Composite	4.0	Nitrogen, Kjeldahl, Total	0.29	J	Estimated Value.
Upper Bear Creek	UBDFB	10/30/2014	12:47:59	Photic Zone Composite	4.0	Nitrogen, Kjeldahl, Total	0.55		
Upper Bear Creek	UBDFB	4/21/2015	13:20	Photic Zone Comp	4.0	Nitrogen, Kjeldahl, Total	0.33	J (I)	
Upper Bear Creek	UBDFB	5/20/2015	10:30	Photic Zone Comp	4.0	Nitrogen, Kjeldahl, Total	0.56		
Upper Bear Creek	UBDFB	6/17/2015	12:00	Photic Zone Comp	4.0	Nitrogen, Kjeldahl, Total	0.27	J (I)	
Upper Bear Creek	UBDFB	7/22/2015	12:15	Photic Zone Comp	5.5	Nitrogen, Kjeldahl, Total	0.35	J (I)	
Upper Bear Creek	UBDFB	8/19/2015	10:55	Photic Zone Comp	5.0	Nitrogen, Kjeldahl, Total	0.3	J (I)	
Upper Bear Creek	UBDFB	9/16/2015	11:00	Photic Zone Comp	4.5	Nitrogen, Kjeldahl, Total	0.26	J (I)	
Upper Bear Creek	UBDFB	10/29/2015	13:40	Photic Zone Comp	4.0	Nitrogen, Kjeldahl, Total	0.41	J (I)	

Station ID	Date	Time	Temperature (°C)	Specific Conductivity (µS/cm)	DO (mg/l)
UBAM-1	6/3/2013	14:45:23	26.63	60	8.62
UBAM-1	6/3/2013	15:00:23	26.61	60	8.75
UBAM-1	6/3/2013	15:15:23	26.66	60	8.82
UBAM-1	6/3/2013	15:30:23	26.63	60	8.91
UBAM-1	6/3/2013	15:45:23	26.7	60	8.98
UBAM-1	6/3/2013	16:00:23	26.73	60	9.1
UBAM-1	6/3/2013	16:15:23	26.65	60	9.19
UBAM-1	6/3/2013	16:30:23	26.8	60	9.23
UBAM-1	6/3/2013	16:45:23	26.76	60	9.32
UBAM-1	6/3/2013	17:00:23	26.78	60	9.34
UBAM-1	6/3/2013	17:15:23	26.66	60	9.5
UBAM-1	6/3/2013	17:30:23	26.63	60	9.58
UBAM-1	6/3/2013	17:45:23	26.71	60	9.63
UBAM-1	6/3/2013	18:00:23	26.74	59	9.62
UBAM-1	6/3/2013	18:15:23	26.75	60	9.67
UBAM-1	6/3/2013	18:30:23	26.71	60	9.73
UBAM-1	6/3/2013	18:45:23	26.65	60	9.77
UBAM-1	6/3/2013	19:00:23	26.68	59	9.81
UBAM-1	6/3/2013	19:15:23	26.7	59	9.84
UBAM-1	6/3/2013	19:30:23	26.76	59	9.87
UBAM-1	6/3/2013	19:45:23	26.73	59	9.9
UBAM-1	6/3/2013	20:00:23	26.7	59	9.93
UBAM-1	6/3/2013	20:15:23	26.69	59	9.96
UBAM-1	6/3/2013	20:30:23	26.68	59	9.99
UBAM-1	6/3/2013	20:45:23	26.66	59	10
UBAM-1	6/3/2013	21:00:23	26.67	59	10.03
UBAM-1	6/3/2013	21:15:23	26.66	59	10.04
UBAM-1	6/3/2013	21:30:23	26.65	58	10.07
UBAM-1	6/3/2013	21:45:23	26.65	58	10.07
UBAM-1	6/3/2013	22:00:23	26.62	58	10.07
UBAM-1	6/3/2013	22:15:23	26.63	58	10.06
UBAM-1	6/3/2013	22:30:23	26.63	58	10.09
UBAM-1	6/3/2013	22:45:23	26.63	58	10.08
UBAM-1	6/3/2013	23:00:23	26.63	58	10.07
UBAM-1	6/3/2013	23:15:23	26.63	58	10.07

Station ID	Date	Time	Temperature (°C)	Specific Conductivity (µS/cm)	DO (mg/l)
UBAM-1	6/3/2013	23:30:23	26.6	58	10.06
UBAM-1	6/3/2013	23:45:23	26.55	58	10.06
UBAM-1	6/4/2013	0:00:23	26.52	58	10.03
UBAM-1	6/4/2013	0:15:23	26.47	58	10.01
UBAM-1	6/4/2013	0:30:23	26.6	58	9.92
UBAM-1	6/4/2013	0:45:23	26.53	58	9.92
UBAM-1	6/4/2013	1:00:23	26.49	57	9.93
UBAM-1	6/4/2013	1:15:23	26.46	57	9.92
UBAM-1	6/4/2013	1:30:23	26.49	57	9.93
UBAM-1	6/4/2013	1:45:23	26.45	57	9.91
UBAM-1	6/4/2013	2:00:23	26.43	57	9.9
UBAM-1	6/4/2013	2:15:23	26.4	57	9.89
UBAM-1	6/4/2013	2:30:23	26.36	57	9.89
UBAM-1	6/4/2013	2:45:23	26.33	57	9.88
UBAM-1	6/4/2013	3:00:23	26.31	57	9.86
UBAM-1	6/4/2013	3:15:23	26.28	57	9.86
UBAM-1	6/4/2013	3:30:23	26.24	57	9.85
UBAM-1	6/4/2013	3:45:23	26.23	57	9.86
UBAM-1	6/4/2013	4:00:23	26.2	57	9.85
UBAM-1	6/4/2013	4:15:23	26.17	57	9.84
UBAM-1	6/4/2013	4:30:23	26.14	57	9.82
UBAM-1	6/4/2013	4:45:23	26.11	57	9.81
UBAM-1	6/4/2013	5:00:23	26.09	57	9.77
UBAM-1	6/4/2013	5:15:23	26.07	57	9.77
UBAM-1	6/4/2013	5:30:23	26.05	56	9.76
UBAM-1	6/4/2013	5:45:23	26	56	9.75
UBAM-1	6/4/2013	6:00:23	26	56	9.73
UBAM-1	6/4/2013	6:15:23	25.98	56	9.68
UBAM-1	6/4/2013	6:30:23	25.94	56	9.67
UBAM-1	6/4/2013	6:45:23	25.92	56	9.66
UBAM-1	6/4/2013	7:00:23	25.91	56	9.67
UBAM-1	6/4/2013	7:15:23	25.9	56	9.67
UBAM-1	6/4/2013	7:30:23	25.88	56	9.67
UBAM-1	6/4/2013	7:45:23	25.88	56	9.66
UBAM-1	6/4/2013	8:00:23	25.86	56	9.66

Station ID	Date	Time	Temperature (°C)	Specific Conductivity (µS/cm)	DO (mg/l)
UBAM-1	6/4/2013	8:15:23	25.86	56	9.65
UBAM-1	6/4/2013	8:30:23	25.88	57	9.67
UBAM-1	6/4/2013	8:45:23	25.88	57	9.67
UBAM-1	6/4/2013	9:00:23	25.9	57	9.69
UBAM-1	6/4/2013	9:15:23	25.94	57	9.67
UBAM-1	6/4/2013	9:30:23	25.95	57	9.65
UBAM-1	6/4/2013	9:45:23	26.04	57	9.67
UBAM-1	6/4/2013	10:00:23	26.08	57	9.65
UBAM-1	6/4/2013	10:15:23	26.22	57	9.65
UBAM-1	6/4/2013	10:30:23	26.2	57	9.7
UBAM-1	6/4/2013	10:45:23	26.27	57	9.69
UBAM-1	6/4/2013	11:00:23	26.29	57	9.71
UBAM-1	6/4/2013	11:15:23	26.39	57	9.7
UBAM-1	6/4/2013	11:30:23	26.42	57	9.73
UBAM-1	6/4/2013	11:45:23	26.47	57	9.77
UBAM-1	6/4/2013	12:00:23	26.53	58	9.8
UBAM-1	6/4/2013	12:15:23	26.6	58	9.8
UBAM-1	6/4/2013	12:30:23	26.64	58	9.83
UBAM-1	6/4/2013	12:45:23	26.7	58	9.84
UBAM-1	6/4/2013	13:00:23	26.84	58	9.82
UBAM-1	6/4/2013	13:15:23	27	57	9.78
UBAM-1	6/4/2013	13:30:23	27.02	58	9.78
UBAM-1	6/4/2013	13:45:23	27.08	58	9.76
UBAM-1	6/4/2013	14:00:23	26.99	58	9.78
UBAM-1	6/4/2013	14:15:23	27	58	9.78
UBAM-1	6/4/2013	14:30:23	27	58	9.84
UBAM-1	6/4/2013	14:45:23	27.05	59	9.9
UBAM-1	6/4/2013	15:00:23	27	59	10
UBAM-1	6/4/2013	15:15:23	26.82	59	10.01
UBAM-1	6/4/2013	15:30:23	26.52	58	10.02
UBAM-1	6/4/2013	15:45:23	26.34	58	10.06
UBAM-1	6/4/2013	16:00:23	26.51	58	10.05
UBAM-1	6/4/2013	16:15:23	26.59	59	10.06
UBAM-1	6/4/2013	16:30:23	26.63	59	10.1
UBAM-1	6/4/2013	16:45:23	26.48	59	10.16

Station ID	Date	Time	Temperature (°C)	Specific Conductivity (µS/cm)	DO (mg/l)
UBAM-1	6/4/2013	17:00:23	26.55	60	10.18
UBAM-1	6/4/2013	17:15:23	26.52	60	10.21
UBAM-1	6/4/2013	17:30:23	26.46	60	10.28
UBAM-1	6/4/2013	17:45:23	26.52	60	10.29
UBAM-1	6/4/2013	18:00:23	26.54	59	10.24
UBAM-1	6/4/2013	18:15:23	26.46	59	10.23
UBAM-1	6/4/2013	18:30:23	26.44	59	10.3
UBAM-1	6/4/2013	18:45:23	26.45	59	10.3
UBAM-1	6/4/2013	19:00:23	26.42	59	10.33
UBAM-1	6/4/2013	19:15:23	26.28	59	10.31
UBAM-1	6/4/2013	19:30:23	26.23	58	10.28
UBAM-1	6/4/2013	19:45:23	26.2	58	10.28
UBAM-1	6/4/2013	20:00:23	26.21	58	10.3
UBAM-1	6/4/2013	20:15:23	26.25	58	10.31
UBAM-1	6/4/2013	20:30:23	26.26	58	10.3
UBAM-1	6/4/2013	20:45:23	26.4	58	10.23
UBAM-1	6/4/2013	21:00:23	26.4	58	10.23
UBAM-1	6/4/2013	21:15:23	26.53	59	10.25
UBAM-1	6/4/2013	21:30:23	26.58	59	10.26
UBAM-1	6/4/2013	21:45:23	26.83	60	10.25
UBAM-1	6/4/2013	22:00:23	26.8	59	10.23
UBAM-1	6/4/2013	22:15:23	26.81	59	10.24
UBAM-1	6/4/2013	22:30:23	26.89	59	10.19
UBAM-1	6/4/2013	22:45:23	26.97	59	10.21
UBAM-1	6/4/2013	23:00:23	26.91	59	10.22
UBAM-1	6/4/2013	23:15:23	26.89	59	10.24
UBAM-1	6/4/2013	23:30:23	26.94	59	10.2
UBAM-1	6/4/2013	23:45:23	26.94	59	10.21
UBAM-1	6/5/2013	0:00:23	26.91	59	10.21
UBAM-1	6/5/2013	0:15:23	26.83	59	10.24
UBAM-1	6/5/2013	0:30:23	26.83	59	10.21
UBAM-1	6/5/2013	0:45:23	26.8	59	10.2
UBAM-1	6/5/2013	1:00:23	26.82	59	10.22
UBAM-1	6/5/2013	1:15:23	26.77	59	10.23
UBAM-1	6/5/2013	1:30:23	26.75	59	10.21

Station ID	Date	Time	Temperature (°C)	Specific Conductivity (µS/cm)	DO (mg/l)
UBAM-1	6/5/2013	1:45:23	26.74	59	10.18
UBAM-1	6/5/2013	2:00:23	26.74	59	10.17
UBAM-1	6/5/2013	2:15:23	26.77	59	10.14
UBAM-1	6/5/2013	2:30:23	26.76	59	10.1
UBAM-1	6/5/2013	2:45:23	26.76	59	10.05
UBAM-1	6/5/2013	3:00:23	26.8	58	10.02
UBAM-1	6/5/2013	3:15:23	26.74	58	10.01
UBAM-1	6/5/2013	3:30:23	26.8	58	9.96
UBAM-1	6/5/2013	3:45:23	26.79	59	9.93
UBAM-1	6/5/2013	4:00:23	26.65	58	9.95
UBAM-1	6/5/2013	4:15:23	26.81	58	9.86
UBAM-1	6/5/2013	4:30:23	26.66	58	9.83
UBAM-1	6/5/2013	4:45:23	26.72	58	9.74
UBAM-1	6/5/2013	5:00:23	26.74	58	9.76
UBAM-1	6/5/2013	5:15:23	26.83	58	9.78
UBAM-1	6/5/2013	5:30:23	26.81	57	9.78
UBAM-1	6/5/2013	5:45:23	26.91	57	9.75
UBAM-1	6/5/2013	6:00:23	26.88	57	9.73
UBAM-1	6/5/2013	6:15:23	27.05	58	9.65
UBAM-1	6/5/2013	6:30:23	27.03	58	9.66
UBAM-1	6/5/2013	6:45:23	27.06	58	9.63
UBAM-1	6/5/2013	7:00:23	27.06	58	9.54
UBAM-1	6/5/2013	7:15:23	27.07	57	9.59
UBAM-1	6/5/2013	7:30:23	27.06	57	9.61
UBAM-1	6/5/2013	7:45:23	27.06	57	9.61
UBAM-1	6/5/2013	8:00:23	27.04	57	9.6
UBAM-1	6/5/2013	8:15:23	27.03	57	9.59
UBAM-1	6/5/2013	8:30:23	27.01	57	9.57
UBAM-1	6/5/2013	8:45:23	27	58	9.49
UBAM-1	6/5/2013	9:00:23	26.94	58	9.33
UBAM-1	6/5/2013	9:15:23	26.96	57	9.4
UBAM-1	6/5/2013	9:30:23	26.91	58	9.44
UBAM-1	6/5/2013	9:45:23	26.89	58	9.43
UBAM-1	6/5/2013	10:00:23	26.87	58	9.42
UBAM-1	6/5/2013	10:15:23	26.86	58	9.4

Station ID	Date	Time	Temperature (°C)	Specific Conductivity (µS/cm)	DO (mg/l)
UBAM-1	6/5/2013	10:30:23	26.86	58	9.39
UBAM-1	6/5/2013	10:45:23	26.87	57	9.38
UBAM-1	6/5/2013	11:00:23	26.88	57	9.36
UBAM-1	6/5/2013	11:15:23	26.9	58	9.32
UBAM-1	6/5/2013	11:30:23	26.92	58	9.31
UBAM-1	6/5/2013	11:45:23	26.95	58	9.3
UBAM-1	6/5/2013	12:00:23	27.01	58	9.35
UBAM-1	6/5/2013	12:15:23	27.02	58	9.4
UBAM-1	6/5/2013	12:30:23	27	58	9.42
UBAM-1	6/5/2013	12:45:23	27	58	9.43
UBAM-1	6/5/2013	13:00:23	27.02	58	9.41
UBAM-1	6/5/2013	13:15:23	27.04	58	9.44
UBAM-1	6/5/2013	13:30:23	27.05	59	9.46
UBAM-1	6/5/2013	13:45:23	27.06	59	9.53
UBAM-1	6/5/2013	14:00:23	27.24	58	9.56
UBAM-1	6/5/2013	14:15:23	27.56	58	9.59
UBAM-1	6/5/2013	14:30:23	27.76	58	9.59
UBAM-1	6/5/2013	14:45:23	27.85	58	9.61
UBAM-1	6/5/2013	15:00:23	27.9	58	9.6
UBAM-1	6/5/2013	15:15:23	27.93	58	9.59
UBAM-1	6/5/2013	15:30:23	27.95	58	9.58
UBAM-1	6/5/2013	15:45:23	27.97	58	9.63
UBAM-1	6/5/2013	16:00:23	27.91	58	9.62
UBAM-1	6/5/2013	16:15:23	27.88	58	9.64
UBAM-1	6/5/2013	16:30:23	27.76	58	9.6
UBAM-1	6/5/2013	16:45:23	27.7	58	9.62
UBAM-1	6/5/2013	17:00:23	27.14	57	9.62
UBAM-1	6/5/2013	17:15:23	27.1	58	9.64
UBAM-1	6/5/2013	17:30:23	27.19	59	9.64
UBAM-1	6/5/2013	17:45:23	27.26	58	9.67
UBAM-1	6/5/2013	18:00:23	27.49	58	9.67
UBAM-1	6/5/2013	18:15:23	27.48	58	9.67
UBAM-1	6/5/2013	18:30:23	27.35	58	9.71
UBAM-1	6/5/2013	18:45:23	27.45	58	9.79
UBAM-1	6/5/2013	19:00:23	27.53	58	9.71

Station ID	Date	Time	Temperature (°C)	Specific Conductivity (µS/cm)	DO (mg/l)
UBAM-1	6/5/2013	19:15:23	27.51	58	9.64
UBAM-1	6/5/2013	19:30:23	27.48	58	9.62
UBAM-1	6/5/2013	19:45:23	27.48	58	9.6
UBAM-1	6/5/2013	20:00:23	27.45	58	9.57
UBAM-1	6/5/2013	20:15:23	27.45	57	9.56
UBAM-1	6/5/2013	20:30:23	27.43	57	9.55
UBAM-1	6/5/2013	20:45:23	27.41	57	9.54
UBAM-1	6/5/2013	21:00:23	27.38	57	9.52
UBAM-1	6/5/2013	21:15:23	27.32	57	9.48
UBAM-1	6/5/2013	21:30:23	27.32	57	9.46
UBAM-1	6/5/2013	21:45:23	27.29	57	9.42
UBAM-1	6/5/2013	22:00:23	27.29	57	9.42
UBAM-1	6/5/2013	22:15:23	27.25	57	9.4
UBAM-1	6/5/2013	22:30:23	27.24	57	9.39
UBAM-1	6/5/2013	22:45:23	27.21	57	9.39
UBAM-1	6/5/2013	23:00:23	27.19	57	9.32
UBAM-1	6/5/2013	23:15:23	27.13	57	9.3
UBAM-1	6/5/2013	23:30:23	27.1	57	9.26
UBAM-1	6/5/2013	23:45:23	27.11	57	9.22
UBAM-1	6/6/2013	0:00:23	27.04	57	9.22
UBAM-1	6/6/2013	0:15:23	27.04	57	9.16
UBAM-1	6/6/2013	0:30:23	27.02	56	9.14
UBAM-1	6/6/2013	0:45:23	26.87	56	9.12
UBAM-1	6/6/2013	1:00:23	26.94	56	9.08
UBAM-1	6/6/2013	1:15:23	26.92	56	9.06
UBAM-1	6/6/2013	1:30:23	26.92	56	9.01
UBAM-1	6/6/2013	1:45:23	26.88	56	9.04
UBAM-1	6/6/2013	2:00:23	26.87	56	9.01
UBAM-1	6/6/2013	2:15:23	26.86	56	9.02
UBAM-1	6/6/2013	2:30:23	26.83	56	9.02
UBAM-1	6/6/2013	2:45:23	26.8	56	9
UBAM-1	6/6/2013	3:00:23	26.75	56	8.96
UBAM-1	6/6/2013	3:15:23	26.75	56	8.92
UBAM-1	6/6/2013	3:30:23	26.74	56	8.89
UBAM-1	6/6/2013	3:45:23	26.7	56	8.87

Station ID	Date	Time	Temperature (°C)	Specific Conductivity (µS/cm)	DO (mg/l)
UBAM-1	6/6/2013	4:00:23	26.68	56	8.84
UBAM-1	6/6/2013	4:15:23	26.67	56	8.85
UBAM-1	6/6/2013	4:30:23	26.64	56	8.84
UBAM-1	6/6/2013	4:45:23	26.61	56	8.82
UBAM-1	6/6/2013	5:00:23	26.59	56	8.8
UBAM-1	6/6/2013	5:15:23	26.57	56	8.81
UBAM-1	6/6/2013	5:30:23	26.55	56	8.78
UBAM-1	6/6/2013	5:45:23	26.52	56	8.69
UBAM-1	6/6/2013	6:00:23	26.5	56	8.76
UBAM-1	6/6/2013	6:15:23	26.32	56	8.79
UBAM-1	6/6/2013	6:30:23	26.27	56	8.83
UBAM-1	6/6/2013	6:45:23	26.24	56	8.96
UBAM-1	6/6/2013	7:00:23	26.14	56	8.98
UBAM-1	6/6/2013	7:15:23	26.21	56	8.94
UBAM-1	6/6/2013	7:30:23	26.04	56	8.96
UBAM-1	6/6/2013	7:45:23	26.08	56	9
UBAM-1	6/6/2013	8:00:23	26.08	56	9.03
UBAM-1	6/6/2013	8:15:23	26.06	56	9.06
UBAM-1	6/6/2013	8:30:23	26.04	56	9.08
UBAM-1	6/6/2013	8:45:23	26.01	56	9.14
UBAM-1	6/6/2013	9:00:23	26.03	56	9.16
UBAM-1	6/6/2013	9:15:23	26	56	9.12
UBAM-1	6/6/2013	9:30:23	25.89	55	9.1
UBAM-1	6/6/2013	9:45:23	25.94	56	9.08
UBAM-1	6/6/2013	10:00:23	25.98	56	9.2
UBAM-1	6/6/2013	10:15:23	25.94	56	9.19
UBAM-1	6/6/2013	10:30:23	25.98	56	9.21